Pearson Connected Mathematics Project, Grades 6-8

Degree of Evidence regarding the Standards for Mathematical Practice:

Moderate Evidence

Summary of evidence:

- 1. Make sense of problems and persevere in solving them. This practice is well developed throughout the sampled materials. Reviewers cited the lesson structure Launch, Explore, Summary as supportive of this practice, since students are prompted to make connections to prior learning during the launch, explore a problem-solving context (often open-ended), and explain their thinking orally (via teacher questions while they are working) and in writing, and then understand other approaches and gain common understanding during the summary phase.
- 2. **Reason abstractly and quantitatively**. This practice is well developed. Sense making both abstractly and quantitatively and the use of representations are a central feature of this resource. The inclusion of real-world scenarios was cited as a particular strength. Flexibility in reasoning is frequently reinforced.
- 3. Construct viable arguments and critique the reasoning of others. This practice is well developed throughout the sampled materials. Many sampled lessons require students to make conjectures and justify and explain their thinking. The teaching notes frequently suggest students working in pairs or small groups and discussing their ideas together. Periodic Mathematical Reflections provide students with opportunities to summarize their learning and clear up misunderstandings. Teacher notes provide guidance in dealing with student misconceptions.
- 4. **Model with mathematics**. This practice is strongly in evidence. Models are used frequently to represent mathematical and real-world relationships. Students are required to communicate about the models and/or to make connections between different models.
- 5. **Use appropriate tools strategically.** This practice is moderately developed in this series. Students use a variety of tools and have opportunities to choose appropriate tools in each of the sampled sections. Technology, specifically graphing calculators, is referenced in the teacher materials, but there is not significant discussion in the sampled teacher or student materials as to how that technology should be used.
- 6. **Attend to precision.** This practice is well developed throughout the series. Students' communication of their ideas with precision is a prominent feature in the sampled materials; for example, each chapter concludes with a Mathematical Reflections section in which student summarize their understandings of key concepts and vocabulary. The teacher notes provide support for encouraging a consistent attention to precision among students.
- 7. **Look for and make use of structure**. This practice was cited as a particular strength in the series. Each sampled lesson made reference to previous lessons or units. Students are frequently asked to investigate patters and to make generalizations. Students also examine or generate examples and non-examples for particular concepts.
- 8. Look for and express regularity in repeated reasoning. This practice was well developed in the series. For example, in a measurement unit in Course 2, students use repeated reasoning to derive formulas for volume and surface area.